

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2004/018870

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C22C9/00 C22C9/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C22C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 727 501 A (TOYOTA JIDOSHA KABUSHIKI KAISHA; FUKUDA METAL FOIL & POWDER CO., LTD) 21 August 1996 (1996-08-21) claim 11	1-10
Y	EP 1 361 288 A (TOYOTA JIDOSHA KABUSHIKI KAISHA) 12 November 2003 (2003-11-12) claims 1-17; tables 1-5	2-10
A		1
Y	EP 0 320 195 A (TOYOTA JIDOSHA KABUSHIKI KAISHA) 14 June 1989 (1989-06-14) column 6, line 55 - column 7, line 15	2-10
A		1
A	EP 0 505 172 A (TOYOTA JIDOSHA KABUSHIKI KAISHA; KABUSHIKI KAISHA TOYOTA CHUO KENKYUSH) 23 September 1992 (1992-09-23) table 1	1-10
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

12 May 2005

Date of mailing of the international search report

24/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Catana, C

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2004/018870

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 939 139 A (NISSAN MOTOR COMPANY LIMITED; MITSUI MINING AND SMELTING CO., LTD) 1 September 1999 (1999-09-01) figures 2,3 -----	1-10
A	US 5 911 949 A (NINOMIYA ET AL) 15 June 1999 (1999-06-15) abstract -----	1-10
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 21, 3 August 2001 (2001-08-03) -& JP 2001 105177 A (TOYOTA CENTRAL RES & DEV LAB INC; TOYOTA MOTOR CORP), 17 April 2001 (2001-04-17) abstract -----	1-10

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/018870

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0727501	A	21-08-1996	JP 3373076 B2 JP 8225868 A AU 676450 B2 AU 4559596 A CA 2169513 A1 CN 1143685 A ,C EP 0727501 A1 KR 196989 B1 US 5843243 A	04-02-2003 03-09-1996 06-03-1997 29-08-1996 18-08-1996 26-02-1997 21-08-1996 15-06-1999 01-12-1998
EP 1361288	A	12-11-2003	EP 1361288 A1 MX PA03006347 A US 2004045641 A1 WO 02055748 A1	12-11-2003 16-03-2004 11-03-2004 18-07-2002
EP 0320195	A	14-06-1989	JP 1152232 A JP 2639949 B2 DE 3871099 D1 EP 0320195 A1 US 5104748 A	14-06-1989 13-08-1997 17-06-1992 14-06-1989 14-04-1992
EP 0505172	A	23-09-1992	JP 1995027 C JP 4297536 A JP 7017978 B DE 69211736 D1 DE 69211736 T2 EP 0505172 A1 US 5188799 A	22-11-1995 21-10-1992 01-03-1995 01-08-1996 07-11-1996 23-09-1992 23-02-1993
EP 0939139	A	01-09-1999	JP 11310837 A DE 69900320 D1 DE 69900320 T2 DE 69909812 D1 DE 69909812 T2 EP 1120472 A2 EP 0939139 A2 US 2001001641 A1	09-11-1999 08-11-2001 04-07-2002 28-08-2003 03-06-2004 01-08-2001 01-09-1999 24-05-2001
US 5911949	A	15-06-1999	JP 10096037 A	14-04-1998
JP 2001105177	A	17-04-2001	NONE	